**What is claimed is:**

1.    A method for maximizing a number of communication sessions in a telecommunications system constrained by a maximum number of user codes and a maximum amount of power, the telecommunications system operable to utilize one of a plurality of protocols to establish a communication session, the plurality of protocols including a first protocol more efficient in power use than code use and a second protocol more efficient in code use than power use, the method comprising:

obtaining a first metric, the first metric associated with a percentage of the maximum number of user codes being used by the telecommunications system;

obtaining a second metric, the second metric associated with a percentage of the maximum amount of power being used by the telecommunications system;

comparing the first metric and the second metric, the comparison identifying whether the first metric is greater or whether the second metric is greater; and

selecting the second protocol to establish a new communication session if the first metric is greater and selecting the first protocol to establish the new communication session if the second metric is greater.


2.    The method of claim 1 further comprising:

comparing the first metric to a predetermined code blocking threshold, the code blocking threshold defining a percentage of the maximum number of codes available for new communication sessions;

comparing the second metric to a predetermined power blocking threshold, the power blocking threshold defining a percentage of the maximum amount of power available in the telecommunications system; and

blocking the establishment of the new communication session if either the first metric exceeds the code blocking threshold or the second metric exceeds the power blocking threshold.


3.    The method of claim 2 further comprising:

determining if the new communication session is a data transfer communication or a voice communication; and

queuing the establishment of the new communication session rather than blocking the establishment of the new communication session if the new communication session is a data transfer communication.

4.    The method of claim 2 wherein the first metric and the second metric are normalized.

5.    The method of claim 1 further comprising utilizing a skewing factor in determining whether the first metric or the second metric is greater, the skewing factor operable to bias the comparison towards the first metric or the second metric.

6.    The method of claim 1 further comprising informing a device which initiated the request of the selected protocol.

7.    The method of claim 1 further comprising:

monitoring the first metric and the second metric during the new communication session; and

modifying the new communication session to utilize the non-selected protocol if the comparison between the first metric and the second metric indicates that the non-selected protocol should be selected.

8.    The method of claim 7 further comprising:

calculating the proximity of the first metric and the second metric to a protocol threshold, the protocol threshold operable to define the first metric and the second metric for each protocol; and

modifying the communication session to utilize the non-selected protocol if the calculation indicates that the first metric and the second metric are a predefined minimum distance from the protocol threshold.

9.    The method of claim 1 further comprising:

obtaining a plurality of first metrics and second metrics, each of the plurality of first metrics and second metrics associated with a component of the telecommunications system;

comparing the first metrics and the second metrics to find a maximum usage level, wherein the maximum usage level is either a first metric or a second metric; and

instructing the component associated with the maximum usage level to select either the first protocol or the second protocol, the selection based on the first metric and the second metric associated with the component.

10. The method of claim 1 further comprising:

selecting a first rate for the new communication session;

determining whether the first rate supports the selected protocol; and

establishing the new communication session using the first rate and the selected protocol if the first rate supports the selected protocol.

11. The method of claim 10 further comprising:

selecting a second rate if the first rate does not support the selected protocol;

determining whether the second rate supports the selected protocol; and

establishing the new communication session using the second rate and the selected protocol if the second rate supports the selected protocol.

12. The method of claim 10 further comprising:

selecting the non-selected protocol if the first rate does not support the selected protocol;

determining whether the first rate supports the selected protocol; and

establishing the new communication session using the first rate and the selected protocol if the first rate supports the selected protocol.

13.    The method of claim 1 further comprising:

determining a maximum rate for the new communication session;

determining whether the first and second protocols are available at the maximum rate; and

if the first and second protocols are available, selecting the second protocol to establish the new communication session if the first metric is greater and selecting the first protocol to establish the new communication session if the second metric is greater.

14.    The method of claim 13 further comprising:

analyzing the availability of at least one resource of the telecommunications system to determine whether a first communication channel can be established using the selected protocol; and

establishing the first communication channel if the resource is available.

15.    The method of claim 14 further comprising:

selecting the non-selected protocol if the resource is not available;

analyzing the availability of the resource to determine whether the first communication channel can be established using the selected protocol; and

blocking the establishment of the new communication session if the first communication channel cannot be established.

16.    The method of claim 14 further comprising:

updating the first metric and the second metric;

determining whether to use the first or the second protocol based on the updated first metric and the updated second metric;

analyzing the availability of the resource to determine whether a second communication channel can be established using the selected protocol; and

establishing the second communication channel if the resource is available.

17. The method of claim 16 further comprising:

selecting the non-selected protocol if the resource is not available;

analyzing the availability of the resource to determine whether the second communication channel can be established using the selected protocol;

determining whether a lower rate exists if the resource is not available; and

selecting the lower rate if the lower rate exists.

18. A method for maximizing the capacity of a telecommunications system constrained by a maximum number of codes and a maximum amount of power, the telecommunications system operable to utilize one of a plurality of protocols to establish a communication session, the plurality of protocols including at least a first protocol more efficient in power use than code use and a second protocol more efficient in code use than power use, the method comprising:

obtaining a code usage level and a power usage level, the code and power usage levels identifying a level of demand on the maximum number of codes and the maximum amount of power being used by the telecommunications system, respectively;

comparing the code usage level and the power usage level, the comparison identifying whether the code usage level is greater or whether the power usage level is greater; and

selecting the second protocol to establish a new communication session if the code usage level is greater and selecting the first protocol to establish the new communication session if the power usage level is greater.

19. The method of claim 18 further comprising:

determining if the new communication session is a data transfer communication or a voice communication; and

queuing the establishment of the new communication session rather than blocking the establishment of the new communication

session if the new communication session is a data transfer
communication.


20. The method of claim 18 further comprising utilizing a
skewing factor in determining whether the code usage level or the
power usage level is greater, the skewing factor operable to bias
the comparison towards the code usage level or the power usage
level.


21. The method of claim 18 further comprising:

monitoring the code usage level and the power usage level
during the new communication session; and

modifying the new communication session to utilize the non-
selected protocol if the comparison between the code usage level and
the power usage level indicates that the non-selected protocol
should be selected.


22. The method of claim 18 further comprising:

calculating the proximity of the code usage level and the
power usage level to a protocol threshold, the protocol threshold
operable to define the code usage level and the power usage level
for each protocol; and

modifying the communication session to utilize the non-
selected protocol if the calculation indicates that the code usage
level and the power usage level are a predefined minimum distance
from the protocol threshold.


23. A system for maximizing communication session capacity in
a first sector of a telecommunications network, wherein the session
capacity in the first sector is constrained by a maximum number of
user codes and a maximum amount of power, the system comprising:

a first processing center accessible by the first sector, the
first processing center operable to communicate with a communication
device;

a first protocol more efficient in power use than code use,
the first protocol operable to establish the communication session
between the first processing center and the communication device;

a second protocol more efficient in code use than power use,
the second protocol operable to establish the communication session
between the first processing center and the communication device;
and

an instruction set for use by the first processing center, the
instruction set including instructions for:

calculating a first code usage level, the first code
usage level associated with a percentage of the maximum number of
codes in use by the first processing center;

calculating a first power usage level, the first power
usage level associated with a percentage of the maximum amount of
power in use by the first processing center;

comparing the first code usage level and the first power
usage level, the comparison identifying whether the first code usage
level is greater or whether the first power usage level is greater;
and

selecting the second protocol to establish a
communication session if the first code usage level is greater and
selecting the first protocol to establish the communication session
if the first power usage level is greater.


24.    The system of claim 23 wherein the first processing
center is distributed between a controller and a transceiver.


25.    The system of claim 23 wherein the instruction set
further includes instructions for:

obtaining a second code usage level and a second power usage
level associated with a second processing center;

comparing the first and second code usage levels and the first
and second power usage levels to find a maximum usage level, wherein
the maximum usage level is either a code usage level or a power
usage level; and

instructing the first or second processing center associated with the maximum usage level to select either the first protocol or the second protocol.

26. The system of claim 23 wherein the instruction set further includes instructions for:

determining if the communication session is a data transfer communication or a voice communication; and

queuing the establishment of the communication session if the communication session is a data transfer communication.

27. The system of claim 23 wherein the instruction set further includes instructions for utilizing a skewing factor in determining whether the first code usage level or the first power usage level is greater, the skewing factor operable to bias the comparison towards the first code usage level or the first power usage level.

28. The system of claim 23 wherein the instruction set further includes instructions for informing the communication device which initiated the request of the selected protocol.

29. The system of claim 23 wherein the instruction set further includes instructions for:

monitoring the first code usage level and the first power usage level during the communication session; and

modifying the communication session to utilize the non-selected protocol if the comparison between the first code usage level and the first power usage level indicates that the non-selected protocol should be selected.

30. The system of claim 23 wherein the instruction set further includes instructions for:

calculating the proximity of the first code usage level and the first power usage level to a protocol threshold, the protocol threshold operable to define the first code usage level and the

first power usage level for each of the first and second protocols; and

modifying the communication session to utilize the non-selected protocol if the calculation indicates that the first code usage level and the first power usage level are a predefined minimum distance from the protocol threshold.